

REMARKS

The present Amendment amends claims 1-31 and 33 and cancels claim 32. Therefore, the present application has pending claims 1-31 and 33.

Claims 1-33 stand rejected under 35 USC §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regards as the invention. Various amendments were made throughout the claims to bring them into conformity with the requirements of 35 USC §112, second paragraph. Therefore, Applicants submit that this objection is overcome and should be withdrawn.

Claims 1-9, 11, 17-24 and 27 stand rejected under 35 USC §102(b) as being anticipated by Selvin (U.S. Patent No. 4,116,517); claims 10 and 26 stand rejected under 35 USC §103(a) as being unpatentable over Selvin; claims 12, 13, 28 and 29 stand rejected under 35 USC §103(a) as being unpatentable over Selvin in view of Moore (U.S. Patent No. 4,050,756); and claims 14-16, 25 and 30-33 stand rejected under 35 USC §103(a) as being unpatentable over Selvin in view of Applicants' alleged admitted prior art. These rejections are traversed for the following reasons. Applicants submit that the features of the present invention as now recited in claims 1-33 are not taught or suggested by Selvin, Moore or Applicants' alleged admitted prior art whether taken individually or in combination with each other as suggested by the Examiner. Therefore, Applicants respectfully request the Examiner to reconsider and withdraw these rejections.

Amendments were made to the claims in order to more clearly describe features of the present invention. Particularly, amendments were made to the claims

to more clearly recite as illustrated in Figs. 3B, 4, 5 and 7A and B that the present invention provides a card reader for reading data contained in a card. The card reader according to the present invention includes an electrical connector for electrically connecting to an electrical mating connector of the card to read data contained therein. The electrical connector includes a rigid substrate and a contact which is in adjacent direct contact with the rigid substrate so as to be directly supported by the rigid substrate.

According to the present invention the contact of the electrical connector makes electrical connection with a corresponding contact on the electrical mating connector of the card and the contact is a collapsible, resiliently deformable, hollow projection.

As recited in the claims, according to the present invention, an area between the contact and the rigid substrate is empty to permit the contact to move between a fully collapsed deformed state and a fully extended undeformed state. Unique according to the present invention is that an opposing force opposing a force deforming and collapsing the contact is provided by the rigid substrate directly to the contact and that an inside surface of the contact when in the fully collapsed deformed state is in substantially direct contact with the surface of the rigid substrate.

The above described features of the present invention now more clearly recited in the claims are not taught or suggested by any of the references of record particularly Selvin, Moore and Applicants' alleged admitted prior art whether taken individually or in combination with each other as suggested by the Examiner.

Selvin teaches a flexible printed circuit which can be electrically connected to a printed circuit board without the use of intermediate conducting contact elements. Selvin teaches, for example, in Fig. 2 thereof an assembly having a plurality of layers including a flexible circuit layer 12, a flexible elastomeric material layer 26 and a rigid pressure plate 30. Thus, as taught by Selvin the hollow upwardly extended contact projection 22 is in direct adjacent contact with the flexible elastomeric material layer 26 which is in adjacent direct contact with the rigid pressure plate 30. Thus, in Selvin the flexible circuit layer 12 which includes the upwardly extended contact project 22 is separated from and therefore does not directly contact the rigid pressure plate 30. The rigid pressure plate 30 taught by Selvin provides the rigidity and serves as a "rigid substrate" corresponding to the rigid substrate recited in each of the claims of the present invention.

However, as has been argued in the previous responses and as discussed in the specification of the present application, it is the intent of the present invention to reduce and/or limit the thickness of the card reader when the card is inserted therein for reading so that the card reader can easily fit in a host device which itself must have a reduced or limited thickness.

The apparatus taught by Selvin is not concerned with its thickness. In fact, Selvin unnecessarily adds to the thickness by providing the flexible elastomeric material layer 26 between the contact 22 and the rigid pressure plate 30.

As per the present invention, providing the rigid substrate in direct adjacent contact with the deformable contact allows for sufficient opposing force to be transmitted to the contact to cause it to properly collapse when placed in contact with

a card. Such is clearly not possible in Selvin since Selvin provides the flexible elastomeric material 26 disposed between the contact 22 and the rigid pressure plate 30.

Further, according to the present invention, the inside surface of the contact when deformed is in direct adjacent contact with the rigid substrate. Such is clearly not taught or suggested by Selvin being that Selvin provides the flexible elastomeric material 26 between the contact 22 and the rigid pressure plate 30.

Still further, Selvin is merely directed to apparatus used for connecting a flexible printed circuit board without concern for the thickness of the resulting structure. The present invention as now more clearly recited in the claims is directed to a card reader having a limited or reduced thickness when a card is inserted entirely different from that taught by Selvin.

Therefore, Selvin fails to teach or suggest an electrical connector including a rigid substrate and a contact which is in adjacent direct contact with the rigid substrate so as to be directly supported by the rigid substrate as recited in the claims.

Further, Selvin fails to teach or suggest that an opposing force opposing a force deforming and collapsing the contact is provided by the rigid substrate directly to the contact and that an inside surface of the contact when in the fully collapsed deformed state is in substantially direct contact with the surface of the rigid substrate as recited in the claims.

Still further, Selvin fails to teach or suggest a card read for reading data contained in a card as recited in the claims.

Thus, as is quite clear from the above, the features of the present invention as now more clearly recited in the claims are not taught or suggested by Selvin.

Therefore, reconsideration and withdrawal of the 35 USC §102(b) and the 35 USC §103(a) rejections of the claims based on Selvin is respectfully requested.

The above noted deficiencies of Selvin are not supplied by any of the references of record particularly Moore and Applicants' alleged admitted prior art.

Moore is merely relied upon for an alleged teaching of a substrate with contacts on opposing sides. Thus, Moore does not supply the deficiencies noted above of Selvin with respect to the features of the present invention as now more clearly recited in the claims. Therefore, combining the teachings of Selvin and Moore still fail to teach or suggest the features of the present invention as now recited in the claims.

Applicants' alleged admitted prior art is relied upon for an alleged teaching of the use of connectors in a SIM/smart card for a telephone. This alleged teaching of Applicants' alleged admitted prior art does not supply the deficiencies noted above of Selvin and Moore with respect to the present invention as now recited in the claims. Therefore, combining the teachings of Selvin with one or more of Moore and Applicants' alleged admitted prior art still fails to teach or suggest the features of the present invention as now more clearly recited in the claims.

Thus, the features of the present invention as now more clearly recited in the claims are not taught or suggested by Selvin whether taken individually or in combination with one or more of Moore or Applicants' alleged admitted prior art. Therefore, reconsideration and withdrawal of the above noted rejections of the

claims under 35 USC §103(a) as being unpatentable over Selvin in combination with one or more of Moore or Applicants' alleged admitted prior art is respectfully requested.

The remaining references of record have been studied. Applicants submit that they do not supply any of the deficiencies noted above with respect to the references utilized in the rejection of claims 1-33.

In view of the foregoing amendments and remarks, Applicants submit that claims 1-31 and 33 are in condition for allowance. Accordingly, early allowance of claims 1-31 and 33 is respectfully requested.

To the extent necessary, the applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, or credit any overpayment of fees, to the deposit account of Antonelli, Terry, Stout & Kraus, LLP, Deposit Account No. 01-2135 (367.40946X00).

Respectfully submitted,

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